

REMARKS

Introduction

In response to the Office Action dated June 14, 2007, Applicants have amended claim 1. Support for amended claim 1 is found in, for example, Paras. [0039]-[0040]; Fig. 2. Care has been taken to avoid the introduction of new matter. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

Claim Rejection Under 35 U.S.C. § 102

Claims 1, 2, and 5-14 were rejected under 35 U.S.C. § 102(b) as being anticipated by JP 2001-143742 to Hatano et al. (hereinafter Hatano). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

Amended claim 1 recites, in part, "...an elastic member **fixed to the case** so as to support the case in the vehicle."

The Office Action asserts that Hatano teaches a case formed by two plates, an adaptor plate and a backup plate, which are fixed on either end of the fuel cell stack (148, 152). The Office Action avers that the mechanism within the case that allows for the expansion and contraction is the disc springs 14 of Hatano that are disposed between the stack and the plate 152.

Turning to the prior art, the rubber mount 168 of Hatano corresponds to the elastic member. The rubber mount 168 is not fixed to the case (148, 152), but to the second end plate 24, which displaces according to the expansion and contraction of the fuel cell stack 12. The rubber mount 168 suffers a shearing force due to displacement of the second end plate 24.

In the Summary of Invention section of the present application, the effects of this expansion or contraction is discussed. Para. [0004] states,

This expansion or contraction applies a shear force to the rubber mount via the brackets. When the rubber mount has deformed due to the action of the shear force, the vibration-blocking function of the rubber mount is not fully manifested. Also, if the deformation acts for a long time period, the durability of the rubber mount will be impaired.

Similar problems arise in the fuel assembly of Hatano having a rubber mount. Hatano states in Paragraph [0058]:

in case the thermal expansion and the heat shrink of laminating components cause and said 1st and 2nd fuel cell stacks 12 and 14 **expand and contract** in the direction of a laminating by change of the ambient temperature and the operating temperature of the 1st and 2nd fuel cell stacks 12 and 14 etc., the 1st end plate 16 and 18 is movable in the direction of arrow-head A through long holes 164a and 164b. Therefore, while stress does not act on the mounting structure 30 at the time of contraction of the 1st and 2nd fuel cell stacks 12 and 14 and preventing damage on said mounting structure 30, it becomes possible to prevent certainly the leakage of the fuel gas from said 1st and 2nd fuel cell stacks 12 and 14, oxidant gas, or a cooling medium (*emphasis added*).

If the fuel cell assembly of Hatano includes the case (148, 152) and the expansion and contraction absorbing mechanism 146, then an elastic member is not fixed to the case (148, 152).

According to the claimed subject matter per amended claim 1, the expansion/contraction of the fuel cell is absorbed by the expansion and contraction absorbing mechanism. Thereby as taught in the instant specification, the case does not expand or contract, even when the fuel cell stack expands or contracts (*see, e.g.*, Paras. [0039]-[0040]; Fig. 2). However, Hatano does not disclose or suggest this, and apparently is unaware of the unexpected improvement in absorbing relative vibrations between the case and the vehicle body provided by the claimed elastic member fixed to the case. Hatano fails to disclose or suggest, "...an elastic member **fixed to the case** so as to support the case in the vehicle," as recited in amended claim 1.

In re claim 14, the Office Action asserts that Hatano teaches an installation plate 31 to which the bolts attach the fuel cell stack.

The installation plate 31 of Hatano is attached to the nut 176 and the rubber mount 168. As stated above, the rubber mount 168 is not fixed to the case (148, 152), but to the second end plate 24, which displaces according to the expansion and contraction of the fuel cell stack 12. This displacement causes the rubber mount 168 to suffer a shearing force in Hatano. Hatano fails to disclose or suggest, "...a supporting member which supports both ends of the fuel cell stack in the case; and **a bolt which fixes the supporting member to the case,**" as recited in claim 14.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities," *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that Hatano does not anticipate claims 1 and 14 nor any claim dependent thereon.

Withdrawal of the foregoing rejection is respectfully requested.

Claim Rejection Under 35 U.S.C. § 103

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatano in view of Chen (U.S. Pat. No. 6,274,258). Claims 3 and 4 depend from claim 1 and include all of the features of that claim plus additional features, which are not taught or suggested by the cited references. Therefore, for at least these reasons, it is respectfully submitted that claims 3 and 4 also patentably distinguish over the cited references.

Conclusion

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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